



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
841 Chestnut Building  
Philadelphia, Pennsylvania 19107

111569

March 17, 1993

Mr. Glen A. Schultz  
Project Manager  
Waste Management of North America, Inc.  
Environmental Management Department  
1121 Bordentown Road  
Morrisville, PA 19067

Re: Elizabethtown Landfill Site  
Pesticide Data Report  
RI Phases 1A and 1B

Dear Mr. Schultz:

Enclosed are EPA's comments on your pesticides data report of February 24, 1993. I have not received PADER's written comments yet, but I expect them in the near future and will forward them as soon as they arrive.

Please contact me should you wish to discuss EPA's comments.

Sincerely yours,

Sherry Lee Gallagher  
Project Manager

cc: R. Karr, WMI

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841 Chestnut Building  
Philadelphia, Pennsylvania 19107

SUBJECT: Elizabethtown Landfill  
RI/FS Interpretation of Phase 1A and  
1B Data

DATE: 3-3-93

FROM: Reginald F. Harris, Senior Toxicologist  
Technical Support Section (3HW13)

TO: Sherry Gallagher, RPM  
Central Pennsylvania Section (3HW24)

The document prepared by Golder Associates has been reviewed and the following comments are made:

1. Please clarify the first paragraph in Section 2.4 in greater detail.
2. No documentation is provided to substantiate the use of pesticides on the Masonic Homes land. The document states that prior agricultural use is indicated, but are there any documents or other information that indicates which, if any, pesticides were definitely used in that area.
3. There is no evidence provided to support the statements made on pages 11 and 12 concerning the sources of the pesticide detections. Without some more formal documentation this information seems to be speculation.
4. The identification of contaminants in background samples as is cited in Section 3.4.2 is a relevant means of determining whether contaminants are site related. This type of information may be appropriate justification in a specific circumstance.
5. It is interesting to note that several contaminants are consistently reported in different site related media. This seems to support their being present at the site and not being artifacts as has been suggested. Please note the dieldrin, heptachlor epoxide, chlordanes, and DDT and its derivatives are reported in more than one of the site media.
6. Several of the carcinogenic risks calculated for the pesticides identified to have been present at levels above the MDL did generate increased cancer risks above  $1.0E-06$  contrary to statements in Section 4.0. The individual increased cancer risks for dieldrin and heptachlor epoxide in a residential use scenario for the ingestion of groundwater both exceeded  $1.0E-06$ . The combined increased cancer risk for ingestion of groundwater would

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produce an increased cancer risk of  $4.3\text{E}-06$  if all of the contaminants identified in Table 4 were to be used for risk assessment purposes, with more than half of that risk being derived from concentrations of dieldrin and heptachlor epoxide.

7. An error is detected in the risk calculations for incidental ingestion of surface soils. The risk due to incidental ingestion of surface soils would also exceed  $1.0\text{E}-06$  if corrected calculations are used. The risk for dieldrin computed would be  $3.7\text{E}-06$ .

8. In light of the fact that risks exceeding  $1.0\text{E}-06$  were calculated for dieldrin and heptachlor epoxide in this evaluation, it is appropriate to subject these contaminants to further risk evaluation in the RI/FS.

9. Dieldrin and heptachlor epoxide were reported at concentrations in groundwater above the  $1.0\text{E}-06$  increased carcinogenic risk level, and exceeded the benchmark concentrations for drinking water according to our Region's Risk Based Concentration Tables. Dieldrin was reported in surface soils above both those levels as well. Our Region feels that is both appropriate and reasonable to subject contaminants to further evaluation which exceed the benchmark concentrations for the contaminants or which may potentially pose a threat to human health.

10. The conclusions presented in Section 5.0 of the Golder document are not supported by the data provided or by the information cited above. The data presented which represents the increased cancer risks above the  $1.0\text{E}-06$  level, and which exceeds the Regional benchmarks mentioned above, was taken from the data which Golder has cited as being acceptable by their standards.

11. It should be noted that the process for the selection of the final list of COCs takes a number of factors into consideration and assessment as to what contaminants are to be considered as COCs should be based on frequency to detection, toxicity, fate and transport considerations, relative risk, concentrations exceeding benchmark values, etc.. There is further evaluation of some pesticides required based on the information cited above. As the screening process proceeds, there may be additional alteration in the list of COCs due to the introduction of additional data, information that may come to light that may effect the risk assessment, the results of the final round of groundwater sampling, or due to the assessment of risk itself. It is the intention of this Region to perform an objective evaluation of the risks at this site and to handle all data in a technically sound and scientifically defensible manner. Contaminants are evaluated based upon their potential to pose risks to human health and the environment. All evaluations will be scientifically sound. It should be noted that there are a number of steps in the process by which the COCs for the site will be selected. At each step careful attention is paid to a number of screening factors which are employed. The data accumulated over the course of the entire

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sampling program must be carefully examined and objectively viewed in order that an accurate picture of the site conditions may be obtained. As the various screening criteria are applied to the samples subject to analysis over the course of the entire investigation, it may become evident that some constituents are not COCs. The screening process may eliminate contaminants at various points in the screening process. Some are eliminated early on since they are not detected, others are eliminated as the process goes on due to low toxicity or infrequent detection; still others are only eliminated at the very end of the process once the calculation of the 95th % confidence limit value for the contaminant is done. This calculation, completed once all data has been evaluated, may indicate that a particular contaminant or group of contaminants does not pose a significant threat to human health or the environment. At that point, it may be appropriate to eliminate other contaminants from the list of COCs or from consideration as contaminants that pose a significant threat to human health. The identification of the contaminants of concern is not based on subjective judgement, but instead upon objective scientific evaluation. These scientific evaluative criteria have been applied, and will be applied in a consistent manner to all sample data for all rounds of sampling. Final determination of COCs will occur after all data and information deemed relevant has been examined. We must therefore review the final round of data and evaluate 95th % upper confidence limit values before we compose our final COC listing.

cc: Eric Johnson  
Bruce Rundell  
Bob Davis

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